

## DESCRIPTION OF NEW SPECIES OF SHELLS.

BY W. D. HARTMAN, M. D.

*Bulimus ruga*, Nobis. Pl. III, fig. 1.

Shell moderately thick, translucent, ovate elongate, body-whorl somewhat inflated. Whorls  $5\frac{1}{2}$ , rounded, suture impressed, crenulate. Four apical whorls with minute spiral striæ, aperture rounded oval. Spire half the length, epidermis absent, oblique lines of growth coarse, umbilicus compressed, lip white, reflected, flat, with a heavy deposit on the pillar lip. Color white.

Height 28 mm., width 15 mm.; height of aperture 10 mm., width of aperture 6 mm.

Hab. Segou Island, New Hebrides.

*Obs.* This shell (of which I have seen but two weather-beaten examples) has the facies of a *Partula* (to which it may be eventually assigned). At every stage of growth, the upper angle of the labium leaves a fold on the suture, giving it the appearance of a ruffle, hence the name.

*Bulimus Bernieri*, Nobis. Pl. III, fig. 2.

Shell moderately thick, translucent, ovate elongate, whorls  $5\frac{1}{2}$ , rounded, suture impressed, surface with fine elevated, regular longitudinal striæ. Spire more than half the length, epidermis absent. Color white, umbilicus compressed, aperture irregularly oval, of a beautiful reddish-orange color within, lip white, reflected and concave; pillar lip with a heavy deposit.

Height 23 mm., width 15 mm.; height of aperture 10 mm., width of aperture 7 mm.

Hab. Segou Island, New Hebrides.

*Obs.* From Mr. Bernier through Mr. Rossiter.

*Partula Kubaryi*, Nobis. Pl. III, fig. 3.

Shell dextral, ovate elongate, thin and translucent, whorls  $4\frac{1}{2}$ , rounded, suture well impressed, spire longer than the aperture, oblique striæ crossed by numerous very fine spiral lines, umbilicus open, columella wide at base, lip white, reflected and concave.

Height 14 mm., diam. 7 mm.; height of aperture 5 mm., diam. of aperture 3 mm.

Hab. Karakaut Archipelago, Bismarck, New Britain.

*Obs.* This shell is about the size of *Partula Coxi* Angas. Received from Mr. Kubary through Dr. Möllendorff of Manilla.

*Melania rubricata*, Nobis. Pl. III, fig. 4.

Shell ovate, very attenuate, decollate. Whorls 11 or more, turreted, flat, spirally striate. Color reddish, lighter below the suture, with darker red flammules in the light part. Aperture ovate, rounded at base, opercle absent.

Height 35 to 55 mm., diam. 6 to 8 mm.

Hab. Vanna Lava Island, Banks Islands, New Hebrides.

*Obs.* Mr. Rossiter possesses several examples from the locality.

*Helicina albescens*, Nobis. Pl. III, fig. 5.

Shell orbicular, thin, smooth and translucent, conoid, apex acute, base convex, whorls 5, compressed, rounded, irregularly and obliquely striated by fine lines, which are sparsely crossed by spiral ones, suture distinctly impressed, first  $1\frac{1}{2}$  embryonic whorls, irregularly foveate, base roundly convex. Umbilicus covered by a thin, white callus, semicircularly sulcate, columella short, aperture very oblique, semi-orbicular, with a faint reddish border within, lip reflected, pale yellow, finely punctate, narrower where it joins the short columella. Color white, opercle absent.

Height  $5\frac{1}{2}$  mm., width 7 mm.; height of aperture  $3\frac{1}{2}$  mm., diam. of aperture  $2\frac{1}{2}$  mm.

Hab. Segou Island. E. L. Layard, Esq.

*Helicina hyalina*, Nobis. Pl. III, fig. 6.

Shell globose, orbicular, depressedly conoid, apex obtuse, thin and hyaline. Whorls  $4\frac{1}{2}$ , compressly rounded and finely striate, suture impressed, convex beneath, with the umbilical region covered by a very thin callus, the base of which is semicircularly sulcate, aperture semi-orbicular, lip slightly reflected. Color light amber, opercle semi-orbicular, very thin, with a thickened rim at the outer margin.

Height 4 mm., diam. 6 mm.; height of aperture  $2\frac{1}{2}$  mm., diam. of aperture 2 mm.

Hab. Mount Halcane, Mindoro, Philippine Islands.

B. Schmacker, Esq.

*Helicina virido-colare*, Nobis. Pl. III, fig. 7.

Shell globose, orbicular, depressly conoid, thin and translucent, apex obtuse, whorls  $4\frac{1}{2}$ , roundly compressed, with numerous fine oblique striæ, suture impressed, last whorl rounded, base convex,

umbilical region with a white callus which is semi-sulcate and thickly foveate, lip simple, not reflected, aperture semi-orbicular. Color canary yellow, lighter beneath the suture, opercle semi-orbicular, thin, corneous, depressed at the center, and of a silvery whiteness.

Height  $4\frac{1}{2}$  mm., diam. 5 mm.; height of aperture  $2\frac{1}{2}$  mm., diam. of aperture 2 mm.

Hab. Solomon Islands. Dr. Jas. C. Cox, datum (No. 192.)

*Helicina Hakodadiensis*, Nobis. Pl. III, fig. 8.

Shell solid, orbicular, conoid depressed, apex obtuse, convex beneath and slightly carinate at the periphery. Whorls 4, compressly rounded, coarsely and obliquely striate and crossed by spiral impressed lines, umbilical region covered by a white vitreous callus and semi-sulcate at base, which is coarsely punctate, aperture semi-orbicular, oblique, pale red within, lip white, slightly reflected. Color pale rose, mottled by irregular white blotches, opercle absent.

Height 3 mm., diam.  $5\frac{1}{2}$  mm.; height of aperture 2 mm., diam. of aperture 2 mm.

Hab. Hakodadi, Japan. B. Schmacker, Esq., datum.

*Helicina Dominicensis*, Nobis. Pl. III, fig. 9.

Shell moderately thick, compressly orbicular, apex obtuse, more convex above than beneath, slightly rounded at the periphery, whorls 4, with fine capillary striæ, suture impressed, aperture oblique, semi-orbicular, red within, lip reflected, white, umbilical callus white, vitreous, thickly punctate and semi-sulcate, color reddish.

Height 3 mm., diam. 4 mm.

Hab. Dominique, Marquesas Islands.

*Obs.* A. Garrett, datum (No. 74.)

*Helicina bitaeniata* Nobis. Pl. III, fig. 10.

Shell thin, semi-orbicular, translucent, vitreous, smooth, depressly conoid, apex obtuse. Whorls  $4\frac{1}{2}$ , rounded at the periphery, aperture semi-orbicular, moderately oblique, lip thin, slightly reflected, base with a white vitreous callus which is punctate, pale horn color, with two pale rose colored bands, one above the periphery the other near the base, visible within the aperture, opercle corneous, reddish and thickly foveate.

Height  $3\frac{1}{2}$  mm., diam.  $6\frac{1}{2}$  mm.; height of aperture  $2\frac{1}{2}$  mm., diam. of aperture 2 mm.

Hab. Dominique, Marquesas Islands. A. Garrett, datum (No. 67).

*Obs.* Readily distinguished from the preceding species, by being larger, more globose and by its thin vitreous appearance.

*Helicina Garrettiana*, *Nobis*. Pl. III, fig. 11.

Shell thick, depressly conoid, apex obtuse, base convex and rounded at the periphery, suture strongly impressed, whorls 4, finely striate, aperture sub-ovate, dark red within, lip white, widely reflected, sometimes reddish, partaking of the color of the shell; color a light cardinal red, white beneath the suture, opercle thin, corneous with a cord-like rim at the outer margin.

Height  $2\frac{1}{2}$  mm., diam. 3 mm.

Hab. Too-apo Marquesas. A. Garrett, datum (67 bis.)

The animals of the genus *Helicina* are denizens of dank and hot climates, as the West Indies, tropical America, the Pacific, Australian and Philippine Islands, together with parts of Japan and China. Dr. Pfeiffer, in his *Pneumonoporum Viventium*, enumerates about 338 species, to which, since the publication of his work in 1876, about 30 have been added. This genus, so numerous in individual species and so widely extended over regions favorable to molluscan life, seems to require a new classification or a rearrangement of the species which, would facilitate their study and identification. This will require a master hand like that of Dr. Pfeiffer's and a wide acquaintance with the species, to enable one to relegate to their proper positions the numerous and diversified species of this genus. At least four sub-genera could be founded with advantage from the genus *Helicina*.

*Melania Rossiteri*, *Nobis*. Pl. III, fig. 12.

Elongated, conic, cylindrical, regularly tapering, decollate, whorls probably 8 or 9, smooth or with very obscure plicæ beneath the suture, surface with sparse obscure spiral lines, suture well impressed, color a dull olive, aperture oval, dull white, with a deposit on the columella. Columella regularly curved.

Diam. at base 8 mm.

*Obs.* I possess three examples from E. L. Layard, Esq. who informs me that they were collected at Vate, New Hebrides by Mr. Rossiter. This species is distinguished by its being more uniformly cylindrical and tapering to the apex less rapidly than *M. Arthuri*, *M. Montrouzieri*, *M. Lamberti*, *M. Matheroni*, *M. Marie* or any other species from the N. Hebrides with which I am acquainted.

*Trochomorpha pulcherrima* Nobis. Pl. III, fig. 13.

Shell dextral, thin and sub-pellucid, lenticular, more convex above than beneath. Whorls six, rounded and finely striate, margin acute, suture impressed, with a fillet beneath, inferior surface more polished and very finely striate, umbilical region depressed, umbilicus small and perforate to the apex, aperture simple, lunate, margin of the last whorl partially occluding the umbilicus.

Height 5, diam. 12 mm.

Hab. Aura Island, N. Hebrides.

E. L. Layard, datum. This is certainly the most beautiful Trochomorph from Aura Island which has yielded three new Trochomorpha and four new Partula.